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## Factors associated with psychological distress, fear, and coping strategies during coronavirus disease 2019 pandemic among community members in Nepal

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#### Abstract

Background: Coronavirus disease 2019 (COVID-19) pandemic had huge impact on social, psychological, and economic well-being of general community people in Nepal.

Objectives: To assess the extent of psychological distress, fear, and level of coping strategies among community members in Nepal.

Methods: A nationwide analytical cross-sectional study was conducted among Nepali residents aged ≥18 years using an online structured questionnaire during 2020 December to 2021 January. Kessler Psychological Distress Scale (K10), Fear of COVID-19 scale (FCV-19S) and Brief Resilient Coping Scale (BRCS) were used in this study. Univariate and multivariate logistic regression analyses were conducted to adjust for potential confounders. Ethical clearance was obtained from institutional review committee of Kathmandu Medical College.

Results: Among 311 respondents, 167 (53.7%) were female. Median age (IQR) 31.3 (13) years with age range 18-69 years. Mean age was  $31.4 \pm 10.3$  years. Being above 30 years old (AOR 3.8, 95% CI 2.13-6.84) were associated with higher levels of psychological distress. Being a female (AOR 0.55, CI 95% 0.30-0.99), moderately improved working situation due to change of employment (AOR 0.39, CI 95% 0.20-0.76), having little perceived distress due to change of employment status (AOR 0.52, 95% CI 0.27-0.97), having positive impact of COVID-19 on financial situation (AOR 0.28, 95% CI 0.13-0.61) were associated with lower levels of fear based on the FCV-19S scale.

Conclusions: This study identified individuals who were at higher risk of psychological distress, level of fear, and low coping strategies during COVID-19 pandemic in Nepal. These findings would assist in exploring the strategies to support mental health of vulnerable population during pandemic and post-pandemic periods.

Key words: Community; Coping strategy; Coronavirus disease 2019; Fear; Psychological distress.

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### **INTRODUCTION**

he ongoing pandemic caused by severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2), has affected all countries with approximately 164 million cases and nearly three million deaths as of May 21, 2021.<sup>1</sup> Several previous studies have found evidence of anxiety, depression, fear, sleep deprivation, and self-harm among community members during the pandemic.<sup>2,3</sup> In the same time frame, Nepal reported over 500,000 confirmed cases and about 5,000 deaths from coronavirus disease 2019 (COVID-19).<sup>4</sup> Having limited resources, Nepal has been

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trying to combat COVID-19 by increasing health care facility testing sites and coverage.<sup>5</sup> Nationwide lockdown, restricting unnecessary movement, was endorsed by the government to interrupt fast community transmission of the virus.<sup>6</sup> These restrictions however had a huge impact on the social, psychological, and economic well-being of public.<sup>7</sup>

The aim of the current study was to assess the extent of psychological distress in a sample of Nepali population as well as to identify coping strategies and key factors associated with them during the pandemic period among all community members.

#### **METHODOLOGY**

This study was a part of global study involving 17 countries.<sup>8</sup> A nationwide analytical cross-sectional study was conducted in Nepal during 2020 December to 2021 January. An online link of the web-based questionnaire was developed and distributed in the social media (Facebook, Messenger Viber, WhatsApp, and Twitter). The initial eligibility question of the questionnaire was about age and place of residence, which on fulfilling, participants could move to the next screen containing the study questionnaire.

Ethical approval was obtained from the Institutional Review Committee at Kathmandu Medical College Teaching Hospital (Ref. 2611202004) before data collection. Data were collected anonymously and could not be linked back to identify any participant.

Nepali residents aged  $\geq 18$  years and capable of responding to an online questionnaire in English or Nepali were invited to participate in the study.

Sample size was calculated considering 34% of depression prevalence during lockdown due to COVID-19 pandemic at 95% confidence intervals and 80% power.<sup>9</sup> The estimated sample size was 345. Snowball sampling technique was used to recruit the study participants. After filling up the online questionnaire, participants forwarded the survey link to their own personal and professional networks.

A structured online questionnaire was developed with reference on previously published studies.<sup>10-13</sup> Questionnaire consisted of questions exploring sociodemographic characteristics of the respondents, behavioural risk factors (alcohol consumption and smoking), self-reported comorbidities (cardiac diseases, stroke, hypertension, hyperlipidaemia, diabetes, cancer, chronic respiratory illness, psychological/ mental health problems), health service utilisation in the last four weeks prior to the data collection time, and history of exposure to COVID-19 including diagnosis and testing.

A combination of three valid and reliable tools was used to meet the objectives of this study. Fear of COVID-19 scale (FCV-19S) was used to assess fear, Kessler Psychological Distress Scale (K10) was used to assess psychological impact and coping strategies were assessed by the Brief Resilient Coping Scale (BRCS).<sup>10-14</sup> Validity and reliability of the tools were tested in previous studies.<sup>14-16</sup>

The FCV-19S has seven items and the response to each item was measured using a five-point Likert scale (strongly disagree, somewhat disagree, neither agree nor disagree, somewhat agree, strongly agree). Score 7-21 were categorised as low and score 22-35 as high. The K10 tool consists of 10 items and five-point Likert scale (none, a little, sometimes, most of the time, all the time). All items were scored, and the total score was categorised into low (score 10-15), moderate (score 16-21), high (score 22-29), and very high (score 30-50). The BRCS tool has four items and responses were measured using a five-point Likert scale (does not describe me at all, does not describe me, neutral, describes me, describes me very well). Similarly, scores were categorised into low (score 4-13), medium (score 14-16), and high (score 17-20).

The questionnaire was translated from English to Nepali language and back translated by two researchers independently. Both language options were provided for respondents during data collection so they could choose any one of them. Pretesting of questionnaire with both languages was done. Questionnaire was finalised with feedback from the research team.

Data from Google forms were downloaded and analysed using IBM SPSS Statistics for Windows, version 25 (IBM Corp., Armonk, N.Y., USA). Descriptive analyses such as mean, standard deviations, and proportions, were used to describe continuous variables (age) and for each scale (K10, FCV-19S and BRCS). To conduct inferential analyses, K10 was defined into low (score 10-15) and moderate to very high (score 16-50), and BRCS was also defined into low (score 4-13) and medium to high (score 14-20) resilient copers. Univariate and multivariate logistic regressions were used to investigate the associations. Cut off for multivariate analysis was p-value <0.2. Odds ratios (ORs) along with 95% confidence intervals (CIs) were calculated. The multivariate models were used to adjust potential confounding factors, such as sociodemographic variables such as age, gender, living status,

country of birth, education, and employment status. It was presented as adjusted OR (AOR) with 95% CI.

## RESULTS

A total of 311 respondents participated in this study. Median age (IQR) of the respondents was 31.3 (13) years with age range from 18 - 69 years. Among all, 167 (53.7%) of the respondents were females, and 218 (70.6%) had the highest level of education (Bachelor and above).

About one-third (100, 32.2%) identified themselves as frontline or essential service worker, which included 75 (24%) doctors, 27 (8.7%) nurses, and other health workers (5%). About one-third (93, 33%) reported having moderate to a great deal of distress due to the change of employment status. Almost half of the respondents (141, 47%) reported that their job was affected negatively due to COVID-19 pandemic (Table 1).

The majority of the study population (262, 84.2%) did not report any comorbidity. Among the respondents who reported comorbidities, only 10 (3.2%) had multiple comorbidities. The majority of the participants (220, 70.7%) were never smokers and 195 (64%) did not consume alcohol in the last four weeks. About onethird of the respondents (84, 27.6%) visited health care providers in person, while only one in 20 people (14, 4.6%) used telehealth consultation. One in three study participants perceived their own mental health as excellent (102, 32.8%) (Table 2).

Almost a third of the participants experienced high to very high levels of psychological distress (95, 30.6%), a fifth of the participants (63, 20%) experienced high levels of fear of COVID-19, and a third (97, 31%) were low resilient copers (Table 3).

Multivariate analyses showed that participants >30 years old (AOR 3.8, 95% CI 2.13-6.84) were more likely to develop moderate to very high levels of psychological distress compared to their counterparts (Tables 4 and 5). Having certificate/diploma as education level (AOR 0.38, 95% CI 0.18-0.79), being an employed or having government benefits (AOR 0.57, 95% CI 0.33-0.98), moderate improve working situation due to change of employment (AOR 0.4, CI 95% 0.19-0.79), having little perceived distress due to change of employment status (AOR 0.44, 95% CI 0.24-0.81), having positive impact of COVID for their financial situation (AOR 0.46, 95% CI 0.26-0.81) were associated with low risk of psychological distress (Tables 4 and 5).

Multivariate analyses showed that being a female (AOR 0.55, CI 95% 0.30-0.99), moderate improve working situation due to change of employment (AOR 0.39, CI 95% 0.20-0.76), having little perceived distress due to change of employment status (AOR 0.52, 95% CI 0.27-0.97), having positive impact of COVID on financial situation (AOR 0.28, 95% CI 0.13-0.61) were associated with lower levels of fear based on the FCV-19S scale. When medium to high resilient copers were compared with low resilient copers based on the BRCS scale, no factors were identified as significant statistically in the multivariate analyses.

Table 1:	Social-demographic	characteristic	of	the
	respondents			

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	Yes	231 (68.5)

#### Oli N et al.

Table 2:	Health related conditions and behaviour of
	study population, n (%)

	<b>T</b> ( ) ( ) ( )
Characteristics	Total, n (%)
Comorbidities*	311
No	262 (84.2)
Yes	49 (15.8)
Alcohol consumption (last four weeks)	305
No	195 (63.9)
Yes	110 (36.1)
Increased alcohol consumption during last four weeks	110
No	85 (77.3)
Yes	25 (22.7)
Smoking	311
Ever smokers (daily, occasionally, ex- smokers)	91 (29.3)
Never smokers	220 (70.7)
Increased smoking during last 4 weeks	66
No	48 (72.7)
Yes	18 (27.3)
Health care service use in the last 4 weeks	304
Did not use	206 (67.8)
Visited health care provider in person	84 (27.6)
Telehealth consultation	14 (4.6)
Perceived status of own mental health	311
Poor	94 (30.2)
Good	115 (37)
Excellent	102 (32.8)

Table 3: Levels of psychological distress, fear of<br/>coronavirus disease 2019, and coping<br/>during coronavirus disease 2019 pandemic<br/>among the study participants

Characteristics	<b>Total, n</b> (%)
K10 score (total)	
Mean ± SD	19.3 ± 7.3
Range	10-50
Level of psychological distress (K10 cate (n=311)	gories)
Low (score 10-15)	119 (38.3)
Moderate (score 16-21)	97 (31.2)
High (score 22-29)	60 (19.3)
Very high (score 30-50)	35 (11.3)
FCV-19S score (total)	
Mean ± SD	16.1 ± 6.3
Range	7-35
Level of fear of COVID-19 (FCV-19S categ	jories)
(n=311)	
Low (score 7-21)	248 (79.7)
High (score 22-35)	63 (20.3)
BRCS score (total)	
Mean ± SD	14.5 ± 2.9
Range	4-20
Level of coping (BRCS categories) (n=31	1)
Low resilient copers (score 4-13)	97 (31.2)
Medium resilient copers (score 14-16)	154 (49.5)
High resilient copers (score 17-20)	60 (19.3)

\*Cardiac diseases/Stroke/Hypertension/Hyperlipidaemia/ Diabetes/Cancer/Chronic respiratory illness

# Table 4: Socio-demographic factors associated with high psychological distress (K10 score), levels of fear of COVID-19 (FCV-19S score), and predictors for coping (BRCS scale) among the study population

Psychological distress (K10 score)				Fear of COVID-19 (FCV-19S score)			Predictors of coping (BRCS scale)		
	Low (score 10- 15), n (%)	Moderate to very high (score 16-50), n (%)	AOR (95% CI)*	Low (score 7-21), n (%)	High (score 22-35), n (%)	AOR (95% Cl)*	Low (score 4-13), n (%)	Medium to high (score 14- 20), n (%)	AOR (95% CI)*
Total study participants	119 (38.3)	192 (61.7)		248 (79.7)	63 (20.3)		97 (31.2)	214 (68.8)	
Age groups									
$\leq$ 30 years	53 (28.6)	132 (71.4)	Ref	148 (80.0)	37 (20.0)	Ref	52 (28.1)	133 (71.9)	Ref
>30 years	66 (52.4)	60 (47.6)	3.8 (2.13- 6.84)	100 (79.4)	26 (20.6)	0.85 (0.44- 1.62)	45 (35.7)	81 (64.3)	1.06 (0.61- 1.87)
Gender	119(38.3)	192(61.7)		248(79.7)	63(20.3)		97(31.2)	214(68.8)	
Male	58 (40.3)	86 (59.7)	Ref	122 (84.7)	22 (15.3)	Ref	46 (31.9)	98 (68.1)	Ref
Female	61 (36.5)	106 (63.5)	0.82 (0.50- 1.35)	126 (75.4)	41 (24.6)	0.55 (0.30- 0.99)	51 (30.5)	116 (69.5)	0.83 (0.50- 1.37)
Completed level of education	118 (38.2)	191 (61.8)		246 (79.6)	63 (20.4)		97 (31.4)	212 (68.6)	

≤ Secondary/ higher secondary	26 (40.0)	39 (60.0)	Ref	52 (80.0)	13 (20.0)	Ref	14 (21.5)	51 (78.5)	Ref
Certificate/ diploma/ trade qualifications	7 (26.9)	19 (73.1)	0.38 (0.18- 0.79)	18 (69.2)	8 (30.8)	0.78 (0.34- 1.79)	7 (26.9)	19 (73.1)	1.87 (0.87- 3.99)
Bachelor/ masters/ PhD	85 (39.0)	133 (61.0)	1.24 (0.45- 3.47)	176 (80.7)	42 (19.3)	1.9 (0.73- 4.97)	76 (34.9)	142 (65.1)	1.62 (0.59- 4.38)
Living status	117 (38.2)	189 (61.8)		243 (79.4)	63 (20.6)		93 (30.4)	213 (69.6)	
Live without family members	24 (38.7)	38 (61.3)	Ref	48 (77.4)	14 (22.6)	Ref	12 (19.4)	50 (80.6)	Ref
Live with family members	93 (38.1)	151 (61.9)	0.59 (0.31- 1.12)	195 (79.9)	49 (20.1)	1.21 (0.58- 2.53)	81 (33.2)	163 (66.8)	1.89 (0.92- 3.92)
Self-identification									
as a frontline or essential service worker	119 (38.3)	192 (61.7)		248 (79.7)	63 (20.3)		97 (31.2)	214 (68.8)	
No	84 (39.8)	127 (60.2)	Ref	168 (79.6)	43 (20.4)	Ref	62 (29.4)	149 (70.6)	Ref
Yes	35 (35.0)	65 (65.0)	0.83 (0.47- 1.46)	80 (80.0)	20 (20.0)	1.0 (0.53- 1.95)	35 (35.0)	65 (65.0)	1.2 (0.68- 2.1)
Current employment condition	117 (39.0)	183 (61.0)		239 (79.7)	61 (20.3)		94 (31.3)	206 (68.7)	
Jobs affected by COVID-19 (lost job/ working hours reduced/afraid of job loss)	64 (45.4)	77 (54.6)	Ref	118 (83.7)	23 (16.3)	Ref	45 (31.9)	96 (68.1)	Ref
Have an income source (employed/ government benefits)	53 (33.3)	106 (66.7)	0.57 (0.33- 0.98)	121 (76.1)	38 (23.9)	0.6 (0.32- 1.13)	49 (30.8)	110 (69.2)	1.29 (0.75- 2.22)
Improved working situation due to change of	107 (37.8)	176 (62.2)		223 (78.8)	60 (21.2)		90 (31.8)	193 (68.2)	
employment A little to none	92 (42.0)	127 (58.0)	Ref	181 (82.6)	38 (17.4)	Ref	67 (30.6)	152 (69.4)	Ref
Moderate to a great deal	15 (23.4)	49 (76.6)	0.4 (0.19- 0.79)	42 (65.6)	22 (34.4)	0.39 (0.20-0.76)	23 (35.9)	41 (64.1)	1.33 (0.72- 2.46)
Perceived distress due to change of employment status	106 (37.6)	176 (62.4)		223 (79.1)	59 (20.9)		88 (31.2)	194 (68.8)	
Moderate to a great deal	81 (42.9)	108 (57.1)	Ref	157 (83.1)	32 (16.9)	Ref	64 (33.9)	125 (66.1)	Ref
A little to none	25 (26.9)	68 (73.1)	0.44 (0.24- 0.81)	66 (71.0)	27 (29.0)	0.52 (0.27- 0.97)	24 (25.8)	69 (74.2)	0.59 (0.32- 1.08)
COVID-19 impacted financial situation	119 (38.3)	192 (61.7)		248 (79.7)	63 (20.3)		97 (31.2)	214 (68.8)	
No	48 (49.0)	50 (51.0)	Ref	87 (88.8)	11 (11.2)	Ref	30 (30.6)	68 (69.4)	Ref
Yes, positive	15 (40.5)	22 (59.5)	0.46 (0.26- 0.81)	30 (81.1)	7 (18.9)	0.28 (0.13- 0.61)	13 (35.1)	24 (64.9)	0.95 (0.53- 1.70)
Yes, negative	56 (31.8)	120 (68.2)	0.64 (0.29- 1.39)	131 (74.4)	45 (25.6)	0.68 (0.27- 1.71)	54 (30.7)	122 (69.3)	0.73 (0.33- 1.59)

\*adjusted for: age, gender, living status, education and employment.

# Table 5: Behavioural factors associated with high psychological distress (K10 score), levels of fear of COVID-19 (FCV-19S score) and predictors for coping (BRCS scale) among the study population.

ological dist		re)	Fear of COVID-19 (FCV-195 score) Predictors of coping (BRCS sc				RCS scale)	
Low (score 10-15), n (%)	to very high (score 16-50), n (%)	AOR (95% CI)*	Low (score 7-21), n (%)	High (score 22- 35), n (%)	AOR (95% CI)*	Low (score 4-13), n (%)	Medium to high (score 14-20), n (%)	AOR (95% CI)*
119	192		248	63		97	214	
35 (31.8)	75 (68.2)		85 (77.3)	25 (22.7)		35 (31.8)	75 (68.2)	
30 (35.3)	55 (64.7)	Ref	67 (78.8)	18 (21.2)	Ref	24 (28.2)	61 (71.8)	Ref
5 (20.0)	20 (80.0)	0.50 (0.16- 1.58)	18 (72.0)	7 (28.0)	0.84 (0.29- 2.44)	11 (44.0)	14 (56.0)	2.14 (0.78- 5.87)
119 (38.3)	192 (61.7)		248 (79.7)	63 (20.3)		97 (31.2)	214 (68.8)	
87 (39.5)	133 (60.5)	Ref	175 (79.5)	45 (20.5)	Ref	66 (30.0)	154 (70.0)	Ref
32 (35.2)	59 (64.8)	0.73 (0.4- 1.33)	73 (80.2)	18 (19.8)	0.79 (0.39- 1.58)	31 (34.1)	60 (65.9)	1.19 (0.66- 2.17)
21 (31.8)	45 (68.2)		54 (81.8)	12 (18.2)		24 (36.4)	42 (63.6)	
18 (37.5)	30 (62.5)	Ref	40 (83.3)	8 (16.7)	Ref	17 (35.4)	31 (64.6)	Ref
3 (16.7)	15 (83.3)	0.23 (0.05- 1.12)	14 (77.8)	4 (22.2)	0.62 (0.15- 2.53)	7 (38.9)	11 (61.1)	1.22 (0.38- 3.93)
21 (22.1)	74 (77.9)		73 (76.8)	22 (23.2)		29 (30.5)	66 (69.5)	
16 (19.8)	65 (80.2)	Ref	64 (79.0)	17 (21.0)	Ref	23 (28.4)	58 (71.6)	Ref
4 (44.4)	5 (55.6)	0.81 (0.07- 9.01)	5 (55.6)	4 (44.4)	2.5 (0.22- 28.31)	2 (22.2)	7 (77.8)	9.57 (0.91- 100.5)
1 (20.0)	4 (80.0)	0.26 (0.02- 3.91)	4 (80.0)	1 (20.0)	4.88 (0.31- 75.9)	4 (80.0)	1 (20.0)	15.07 (0.89- 254.9)
119 (38.3)	192 (61.7)		248 (79.7)	63 (20.3)		97 (31.2)	214 (68.8)	
13 (13.8)	81 (86.2)	Ref	73 (77.7)	21 (22.3)	Ref	31 (33.0)	63 (67.0)	Ref
		604 (202			1.09 (0.59-			0.86 (0.49-
	ological dist   alogical dist   10-15),   119   35 (31.8)   30 (35.3)   5 (20.0)   19 (38.3)   32 (35.2)   32 (35.2)   32 (35.2)   18 (37.5)   3 (16.7)   18 (37.5)   3 (16.7)   16 (19.8)   16 (19.8)   4 (44.4)   1 (20.0)   119 (38.3)	Align (Score 10-15), n (%)         Moderate to very high (score 16-50), n (%)           119         192           35 (31.8)         75 (68.2)           30 (35.3)         55 (64.7)           5 (20.0)         20 (80.0)           119         192 (61.7)           87 (39.5)         59 (64.8)           32 (35.2)         59 (64.8)           18 (37.5)         30 (62.5)           3 (16.7)         15 (83.3)           18 (37.5)         30 (62.5)           3 (16.7)         15 (83.3)           16 (19.8)         65 (80.2)           16 (19.8)         65 (80.2)           11 (20.0)         4 (80.0)           119 (38.3)         192 (61.7)	Moderate to very high (score n (%)       Moderate to very high (score 16-50), n (%)       AOR (95% CI)*         119       192         35 (31.8)       75 (68.2)         30 (35.3)       55 (64.7)         5 (20.0)       20 (80.0)         119 (38.3)       192 (61.7)         87 (39.5)       133 (60.5)       Ref         32 (35.2)       59 (64.8)       0.73 (0.4- 1.33)         18 (37.5)       30 (62.5)       Ref         3 (16.7)       15 (83.3)       0.23 (0.05- 1.12)         18 (37.5)       30 (62.5)       Ref         3 (16.7)       15 (83.3)       0.23 (0.05- 1.12)         16 (19.8)       65 (80.2)       Ref         14 (44.4)       5 (55.6)       0.81 (0.07- 9.01)         1 (20.0)       4 (80.0)       0.26 (0.02- 3.91)         119 (38.3)       81 (86.2)       Ref	Noderate         Fear of CO           Moderate         AOR (95%)         Fear of CO           Noderate         AOR (95%)         CI)*         Dow (score           10-15),         high (score         AOR (95%)         CI)*         Dow (score           119         192         248           35 (31.8)         75 (68.2)         Ref         67 (78.8)           30 (35.3)         55 (64.7)         Ref         67 (78.8)           5 (20.0)         20 (80.0) $0.50 (0.16)$ 18 (72.0)           87 (39.5)         133 (60.5)         Ref         175 (79.5)           32 (35.2)         59 (64.8) $0.73 (0.47)$ 248 (79.7)           87 (39.5)         33 (60.5)         Ref         40 (83.3)           18 (37.5)         30 (62.5)         Ref         40 (83.3)           31 (16.7)         15 (83.3) $0.23 (0.05)$ 14 (77.8)           21 (22.1)         74 (77.9)         Ref         64 (79.0)           16 (19.8)         65 (80.2)         Ref         64 (79.0)           12 (12 (2.1)         4 (80.0) $0.26 (0.02^{\circ}$ 4 (80.0)           3 (16.7)         192 (61.7)         248 (79.7)           10 (38.3)	Noderate         Fear of COUD-19 (FCV- to very           Noderate         AOR (95%         Low (score 7-21), n(%)         High (score 22- 35), n(%)           119         192         248         63           35 (31.8)         75 (68.2)         85 (77.3)         25 (22.7)           30 (35.3)         55 (64.7)         Ref         67 (78.8)         18 (21.2)           5 (20.0)         20 (80.0) $0.50 (0.16)$ 18 (72.0)         7 (28.0)           30 (35.3)         55 (64.7)         Ref         67 (78.8)         18 (21.2)           5 (20.0)         20 (80.0) $0.50 (0.16)$ 18 (72.0)         7 (28.0)           37 (35.3)         192 (61.7)         Ref         175 (79.5)         45 (20.5)           32 (35.2)         59 (64.8) $0.73 (0.4^2)$ 73 (80.2)         18 (19.8)           119 (38.3)         45 (68.2)         Fei Autor (177.8)         42 (22.2)           13 (16.7)         15 (83.3) $0.23 (0.05^2)$ 14 (77.8)         4 (22.2)           14 (17.8)         45 (68.2)         Ref         40 (83.3)         8 (16.7)           14 (77.8)         5 (56.6)         Ref         64 (79.0)         17 (21.0)           14 (44.4)         5 (55.6)	ological distress (K10 score)         Fear of COVID-19 (FCU-19S score)           Moderate to very 10-15), n (%)         Moderate to very high (score 16-50), n (%)         AOR (95% CI)*         Low (score 7-21), n (%)         High (score 22, 35), n (%)         AOR (95% CI)*           30 (35.3)         75 (68.2)         248         63            30 (35.3)         55 (64.7)         Ref         67 (78.8)         18 (21.2)         Ref           5 (20.0)         20 (80.0) $0.50 (0.16$ 1.58)         18 (72.0)         7 (28.0) $0.84 (0.29-2.44)           119 (38.3)         192 (61.7)         248 (79.7)         63 (20.3)         8           32 (35.2)         59 (64.8)         0.73 (0.4-1.33)         73 (80.2)         18 (19.8)         0.79 (0.39-1.58)           32 (35.2)         59 (64.8)         0.73 (0.4-1.33)         73 (80.2)         18 (19.8)         0.79 (0.39-1.58)           18 (37.5)         30 (62.5)         Ref         14 (77.8)         12 (18.2)         .           18 (37.5)         30 (62.5)         Ref         14 (77.8)         8 (16.7)         Ref           18 (37.5)         30 (62.5)         Ref         40 (83.3)         8 (16.7)         2.5 (0.22-2.53)           21 (22.1)         74 (77.9)         S (55.6)$	ological distress (K10 score)         Fear of COVID-19 (FCV-19S score)         Predictors           Low (score to very high (score, n (%))         AOR (95% CI)*         Low (score 7-21), n (%)         High (score 2-35), n (%)         AOR (95% CI)*         Low (score 7-21), n (%)         AOR (95% CI)*         Low (score 7-21), n (%)         AOR (95% CI)*         Low (score 7-21), n (%)         AOR (95% CI)*         AOR	Moderate to very 10-15, n (%)         MoR (95% cl)*         Low (score 7-21), n (%)         High (score 22 35), n (%)         AOR (95% cl)*         Low (score 4-13), n (%)         Medium to the score 4-13), n (%)

\* adjusted for age, gender, living status, education, and employment.

6

## DISCUSSION

This analytical cross-sectional study was carried out among a sample of community residents of Nepal aiming to assess the extent of and identify factors associated with psychological distress, level of fear and coping strategies during the COVID-19 pandemic. This study identified individuals who were older than 30 years, being male, who were at higher risk of psychological distress, fear and coping strategies during the COVID-19 pandemic in Nepal.

Being older than 30 years old was associated with higher psychological distress in this study. Respondents who were employed or had government benefits reported low risk of psychological distress and lower level of fear. Also, females were associated with low level of fear compared to males. One of the reasons maybe that there was information spread in the community based on the research findings that males were more predisposed for COVID-19 and were at higher risk of developing severe form compared to female.<sup>17</sup> However, other studies reported that being a female was associated with higher psychological distress.<sup>2, 3</sup>

Around 97 (30%) of the respondents experienced moderate to high levels of psychological distress in this study compared to 11.5% of moderate and severely distressed in other study conducted in Nepal.<sup>18</sup> This difference can be due to time of data collection. This study was done after second wave of COVID-19 pandemic in Nepal, which was more devastating that the first wave,<sup>19</sup> compared to another study which was done during first wave. Therefore, length of pandemic could have contributed to higher level of psychological distress in current study. On the other hand, about 60% of Malaysians experienced moderate to very high levels of psychological distress compared to 69% in Bangladesh.<sup>20-21</sup>

In this study, 63 (20%) reported high level of fear of COVID-19 which is less than among Malaysians (27%), Bangladesh community (38.5%) and in Hong Kong (31%).<sup>22-24</sup>

Only 60 (19%) of the respondent were found to be high resilient copers in regards of COVID-19 which was compatible with 17% and 17.7% of high resilient copers in Malaysia and Bangladesh respectively.<sup>22-23</sup>

Other studies show that financial difficulty was associated with anxiety, psychological distress, fear, and a predisposition to depression as a result several months

of lockdown.<sup>23</sup> Thus current study showed positive impact of COVID-19 for their financial situation were associated with low risk of psychological distress and lower level of fear.

Lockdown measures which aimed closure of educational activities, restriction on all social, cultural, and sporting activities, along with restriction in international travels were adopted in Nepal.<sup>24-25</sup> Evidence shows that in addition to the illness itself, people from all walks of life, especially elderly, groups with low levels of education, migrant workers, and those with unstable income are more vulnerable and more so in middle and low-income countries.<sup>26-27</sup>

There was no association between fear and reporting any existing comorbidities or increased health care utilisation among community embers. Possible reason for that could be the fact that the data collection was conducted during 2020 December to 2021 January when the number of cases declined and loosening of lockdown restrictions were contributing towards decreasing sense of catastrophic nature of the pandemic.<sup>28</sup> The majority of the respondents were essential service workers or frontline workers who already adapted to the situation.

The major strengths of this study were the use of validated tools to explore the factors associated with psychological distress, fear, and coping strategies among the community members of Nepal during the COVID-19 pandemic. However, this study has a few limitations. Due to national lockdown, online survey was the only feasible way for data collection. Hence, mostly younger people participated in this survey as they were more active on social media. Also, data collection was limited to people who could access online platforms therefore community members who do not have access to internet or those who were illiterate were missed in the study. However, to ensure that participants who could not read and write in English were covered, the guestionnaire was translated in Nepali. The survey was available in both languages. Due to the self-reporting nature of the survey, there was the possibility of reporting bias. Moreover, snowballing sampling which was used for this study can introduce selection bias. Therefore, the findings of this study could be potentially underestimated and might not be representative to the general population of Nepal though the findings of this study provide important information regarding coping strategies as well as segregate some groups who could be more vulnerable to the psychosocial effects of the pandemic.

## Oli N et al.

## **CONCLUSION**

This study identified individuals who were at higher risk of psychological distress, fear, and coping strategies during the COVID-19 pandemic in Nepal. Vulnerable groups of individuals such as older people and those impacted financially during COVID-19 should be supported for their mental well-being. Findings of this study would assist

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the researchers to plan future studies with vulnerable groups of Nepali population and exploring the strategies to support their mental well-being during the pandemic as well as in post-pandemic period.

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